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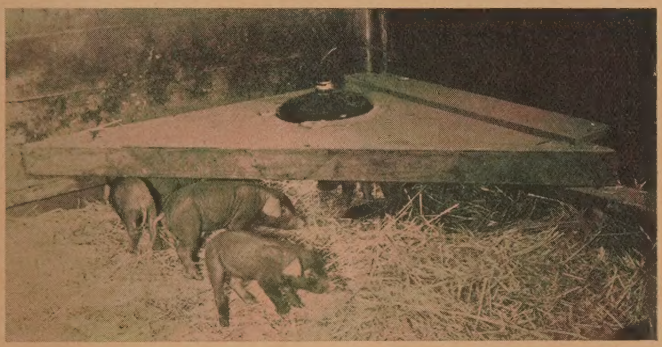
A Lamp-type Electric Pig Brooder

F. E. PRICE, A. W. OLIVER, and IVAN BRANTON



An electric pig brooder at Oregon State College

Oregon State System of Higher Education
Agricultural Experiment Station
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A Lamp-type Electric Pig Brooder

By

F. E. Price, A. W. Oliver, and Ivan Branton

ELECTRIC pig brooders of various types have been used by the Animal Husbandry Department of Oregon State College during the past ten years. A pig brooder provides a warm corner in the pen which the pigs soon learn is more comfortable than other parts of the pen. This tends to reduce losses, during cold weather when pigs are sometimes crushed by their mother as they try to get close for warmth. The litters started with an electric brooder for 7 to 10 days average one more pig to the litter at weaning time than litters raised without brooders.

Since simplicity and low cost of construction and operation are necessary to make a pig brooder practical, the lamp type brooder with the triangular shaped hover that will fit in the corner of the pen has been found more satisfactory in trials at the Oregon State College, where this type has been used for the past five years. This type of brooder consists of a 100- or 150-watt regular Mazda electric lamp with a suitable reflector, which is mounted over the top opening in a wooden hover.

A triangular hover 3 feet by 3 feet on the square side is adequate in size and fits into any corner. The brooder framework is constructed of 2″ x 4″ boards. One leg is placed in each angle of the triangle. The top of the hover consists of a piece of $\frac{1}{4}$″ or $\frac{1}{2}$″ plywood with a 12-inch hole for the reflector. A frame of 2″ x 2″ material is constructed around the reflector and $\frac{1}{2}$-inch mesh hardware cloth (wire screen) is tacked to this frame on the underside. The hardware cloth prevents the pigs from molesting the lamp and reflector unit.

In the interest of safety it is particularly important to use a (No. 16 size, 2-wire) rubber-covered shop extension cord complete with rubber-covered socket. The standard brass shell sockets should not be used as they are hazardous for this type of use.

Brood sows are quite nervous at farrowing time and will destroy the brooder unit unless it is well protected. Figure 2 shows a guard of two 2″ x 12″ planks used at Oregon State College to protect the units. In Figure 1 and the cover picture the guard was removed to show the brooder construction. Note that in these installations the brooder frame is supported by the 2″ x 4″ guard rails that extend around the inside of the pen.

The brooders shown are equipped with a R. L. M. dome reflector, which is the best. Home-made reflectors can be constructed by following the plans shown on page 4.

The amount of electricity consumed by this type of brooder is very low. A 100-watt lamp will consume only 16.8 kilowatt hours per week, which would cost approximately 50 cents at a rate of 3 cents per kilowatt hour.

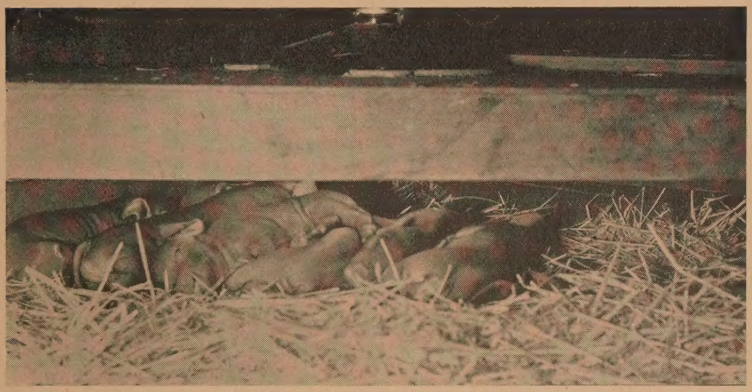
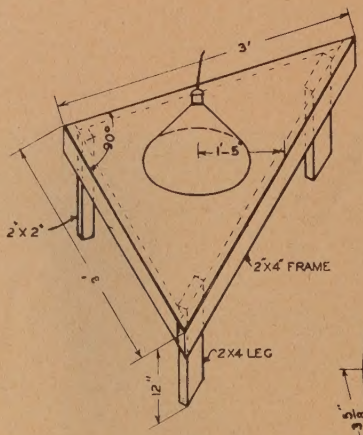
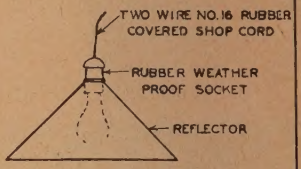
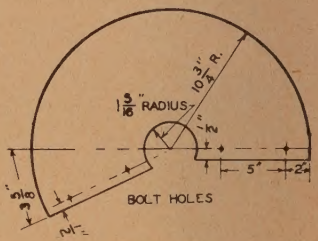


Figure 1. Pigs underneath lamp type pig brooder.

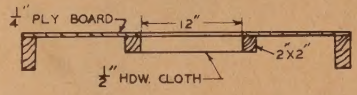
Figure 2. Two-inch planks are necessary to protect the pig brooder from the sow.







PATTERN FOR REFLECTOR



CROSS SECTION THROUGH LAMP GUARD

NOTE

LAMP MAY BE 100 OR 150 WATT CAPACITY.

AGRICULTURAL ENGINEERING DEPARTMENT OREGON STATE COLLEGE
ELECTRICAL PIG BROODER
DRAWN BY JOHN BURSIK CHECKED BY IVAN BRANTON
NO. 3/30/40